

Status Report on Fiscal Year 2016 Goals





Enhance technology, systems and processes to promote academic excellence and pioneering research



Temple's reputation as one of the nation's finest urban research universities is growing, based on broadening awareness of the excellence and creativity of our faculty, students and staff. To further this excellence, Computer Services:

- ❖ Fostered stronger campus partnerships by initiating a new working group consisting of members from the Center for Advancement of Teaching and Computer Services to support faculty with teaching technology initiatives, participating in a roundtable bi-weekly committee meeting with the Office of Digital Education to help with online learning enterprises, and collaborating on faculty initiatives at monthly Teaching and Learning Technology Roundtable (TLTR) committee meetings. Also worked with the School of Business, Office of Digital Education, Teaching and Learning Center, and Disability Resources to promote universal technology accessibility standards.
- ❖ Implemented u.direct, a system to augment our current degree audit program with the functionality to create interactive course roadmaps. Pilot groups in the Fox School of Business and the School of Tourism and Hospitality Management began using the term-by-term roadmaps and plans in conjunction with student registration in the fall of 2015. Both advisors and students report satisfaction with the product. An upgrade to the latest release of u.direct is currently underway and is expected to go live within the next fiscal year.

Quick Stats

Installed 78 Kramer wireless projection devices in 63 classrooms/meeting spaces; installed 46 Apple TV boxes in 45 learning spaces.

Upgraded 19 smart classrooms in Beury and Ritter Halls and Ritter Annex with new Dell instructor computers.

Logged over 4,010 walk-in/phone/email faculty consultation requests in the Instructional Support Center from July 1 through December 2016.

Delivered 4,100 Faculty Technology Tools information packets.



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- ❖ Improved the transfer student experience by developing a new interactive online tool that allows prospective students to see how courses taken at 199 different institutions would equate to Temple coursework. The tool enables searches for institutions by name, city or state and for courses by subject, title or course number. This allows a student to know the amount of credits that will transfer and apply to their major and the additional coursework needed. Students can also estimate the amount of time to complete their degree. Usage of the tool is averaging approximately 8,000 hits per month.
- ❖ Worked with Institutional Research & Assessment and the Provost Office to incorporate drop/add freeze data for Fly-in-4 into the enterprise data warehouse. Created a dynamic report (Student Characteristics) for the program. Also completed a Tactical/Operation Dashboard for Fly-in-4 Checkpoints to help track progress between drop/add periods.
- ❖ Developed Fly-in-4 Dashboards that provide relevant and specific data to School and College Deans.

Quick Stats

Processed over 2.3 million student print jobs via UniPrint, nearly 8.5 million sheets of paper. Over 170 UniPrint printers are located for students on the Main, HSC, Ambler, Podiatry, TUCC, and Harrisburg campuses.

Emailed over 50 weekly Tech Bits to share technology tips with the community.



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- ❖ Assisted the Office of Undergraduate Studies in implementing new academic policy changes in Banner. The Student Competency Center collaborated with Provost Office staff to design end-of-term processes that calculate Academic Standing for active Academic Recovery students. The process sends customized decision emails and calculates required target GPAs for future terms. Last year, 146 students participated in the Academic Recovery program and so far 24 have been successful in improving their GPAs to good Academic Standing.
- ❖ Migrated Temple's self-hosted Blackboard Learning Management System to a managed cloud-based environment to improve system stability and repurpose our staff to focus on new academic and instructional technologies. Established an early adopters program in the Fall 2015 for the College of Education, Law, Podiatry, Science and Technology/Computer and Information Sciences, College of Public Health, and School of Media and Communications. By August 2016, over 24,600 courses and 400+ organizations will be moved to the new cloud environment.
- ❖ Built a database sourced from multiple administrative systems to enable Temple researchers to develop a predictive student retention model. The research team identified 509 data elements over 17 sources. Additional grant funding has been requested to build out the next phase which involves the creation of a retention equation.

Quick Stats

Deployed ~150 to 200 software applications on more than 1,500 computers in over 10 lab facilities using a centrally managed imaging process.

Processed 86 software compliance accessibility exception requests. Migrated 132 historical exception requests to the new online request system.



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- ❖ Defined and managed the delivery of technology to support the new HSC TECH Center which houses a state-of-the-art 95 seat computer lab facility and expanded Instructional Support Center (ISC) for faculty use. Scheduled to open in August 2016, the center will provide many of the same services and software as the Main Campus TECH Center, including specialty printing, full wireless access, cellphone charging lockers, a 40-seat lounge area, ten digital displays, and five breakout rooms equipped with the latest web conferencing and wireless projection technology. Computer Services support staff offices will be consolidated into the center making it a one-stop place to get help.

The expanded HSC ISC will also include a reception area, staff office, meeting room, and open faculty workspace for one-on-one consulting and group training. A separate media output room for poster printing will be included, along with a wireless infrastructure, digital signage, and Kramer/Apple TV wireless projection.

- ❖ Worked with the Office of Digital Education (ODE) on accessible technology and evaluation rubrics. Presented with ODE on Temple's Accessibility Initiative at the State University of New York FACT2 Symposium. Also presented at the California State University, Northridge International Technology & Persons with Disabilities Conference, Delaware Valley Network Fall Meeting and the Accessible World Conference.



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- ❖ Implemented 11 new collaborative teaching and learning spaces as a result of the 2015 Technology Fee Grants for the College of Liberal Arts, College of Public Health, Fox School of Business, School of Media and Communication/Cinematic and Performing Arts, Boyer College of Music and Dance, and remote sites including Center City and Harrisburg. Designed a new Barrack Hall space plan for the Law School, which will come online fiscal year 2016-2017. These new learning spaces will transform the teaching environment to a more interactive and engaged student learning experience.
- ❖ Collaborated with the Office of Research to implement a process that helps researchers write the security and data management sections of grant proposals.
- ❖ Implemented a web-based system to collect and verify ID card photos for newly admitted students. Students no longer have to visit an office to have photos taken and the application also helps ensure academic integrity in online programs and courses. Students enrolled in online programs submit images of government-issued IDs for further verification. Since inception, 5,291 traditional and 124 online students have submitted photos.



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- ❖ Performed a feasibility study for using big data analysis within Computer Services. As a result, Computer Services determined not to pursue this project at the current time, due to the high cost (hardware, software and resources) and lack of clear requirements.
- ❖ Collaborated with Facilities Management in renovating three lobby areas in Tuttleman and three lounge/open spaces in Wachman Hall. Installed new furniture, computers, printers, digital signage and mobile charging stations to provide students anyplace/anytime accessibility.

Also implemented 26 innovative Wachman Hall classrooms featuring mobile furnishings, web conferencing, wireless projection for BYOD/mobile device use, AMX integrative technology and adjustable instructor stations. Developed instructional materials and trained over 170 faculty teaching in Wachman on technology operations. Created and deployed a classroom technology survey to assess the effectiveness of the new learning spaces which is resulting in improvements for Fall 2016.

- ❖ Expanded Print on the Go student service by launching a mobile Uniprint app that allows students to check print quota balances, upload documents and select from more than 95 printers located on five campuses to send print jobs.



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- ❖ Piloted Virtual Desktop Infrastructure (VDI) in the TECH Center and Tuttleman computer labs expanding student access to required software in Computer and Information Sciences. VDI recreates a department's specialized computer lab, with the requisite software and enables academic network access required for its servers. This resource eliminates the need for academic departments to purchase and set up physical components in designated spaces. VDI is now a Fiscal Year 2017 strategic initiative to support the growing demand for virtual access to technology resources as physical space becomes increasingly scarce.
- ❖ Expanded Main Campus TECH Center hours by staying open an additional 10 hours per week (4.5 hours later until midnight on Friday and Saturday nights, and opening an hour earlier on Sundays at 10:00 am). This request was driven by student demand for later hours.
- ❖ Continued working with the College of Science and Technology faculty on a research grant to install a Grid Computing app that allows CPU cycles to be shared for complex calculations. The app is now installed on 1,500+ computers in multiple lab locations.



Extend and enhance technology services by introducing process efficiencies focusing on improved customer service



Temple provides opportunities to foster student and faculty entrepreneurship and innovation. To offer students an effective “real-world tech ready” environment and to help faculty and staff successfully deliver their academic and administrative missions, Computer Services:

- ❖ Collaborated with the College of Education to implement Banner Recruiter in August to process online applications for the Graduate Certificate program. Expanded implementation in June 2016 to the professional program in the Lewis Katz School of Medicine. The Graduate School of Education used Recruiter to further implement an integrated process for recruiting graduate students that incorporates interview, decision, and CRM (communication) processes.

- ❖ Implemented the following new services in the TUmobil smartphone app:
 - Dining Services for students, faculty and staff
 - Welcome Week content (in conjunction with Strategic Marketing & Communications)
 - Convocation 2015 content (in conjunction with Provost Office)
 - Commencement 2016 (in conjunction with Provost Office)

Quick Stats

Logged 127,464 Help Desk support requests.

Received rating of Good-to-Excellent in 95% of the 6,668 Help Desk survey responses for Fiscal Year 2016. This customer service rating has stayed within this range over the last several years.



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- ❖ Enhanced the Graduate Change of Program workflow by enabling advisors to update the graduation date directly in Banner without having to send the request to the Graduate School office for manual data entry. Over 550 workflows were submitted in the past nine months without requiring intervention from the Graduate School office staff which resulted in increased turnaround time for changes. Also enhanced the workflow by providing more intelligent drop downs for primary and secondary majors.
- ❖ Implemented a Graduate Tuition Remission workflow that validates student registration at the time of the request, secures the signature authorization process and automates the approval process. The workflow makes it easier for employees to submit requests, ensures that the benefit eligibility rules are followed, and decreases processing time in the Bursar and Human Resource Offices.
- ❖ Worked with Human Resources to implement Taleo, a new university-wide applicant tracking system for hiring employees, adjunct faculty and student workers. Launched in May 2016, this new system improves and modernizes the external applicant experience and streamlines internal processes.

Quick Stats

Provided 12,873 technical support office visits by the Desktop Support team.

Provided onsite help connecting to the residence hall network to over 630 students, a 55% reduction from last year due to infrastructure improvements. Student survey responses showed that 97% of those who received help gave a rating of Good-to-Excellent.



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- ❖ Provided technical support and Banner integration for the implementation of eBuilder, a project management system used to track change orders, invoices and chargebacks associated with major construction projects. The integration facilitates timely tracking of all project-related expenses in eBuilder.
- ❖ Evaluated the UniPrint chargeback service model and developed a plan to transfer a portion of monies collected back to the Schools and Colleges. Fixed costs are deducted from the amount collected and, based on the percentage collected by each location, remaining dollars are distributed in relation to the total collections.
- ❖ Developed and distributed a Desktop Hardware Life Cycle Dashboard, which is available online, to assist with annual hardware refresh and budget planning. Prepared and reviewed reports for eight Schools, Colleges and/or administrative departments representing a combined total of 1,425 workstations.
- ❖ Supported the Strategic Web Initiative by providing insight and guidance where appropriate. Served as a liaison between Strategic Marketing & Communications and the Competency Centers, and built a data hub so enterprise data (such as degree and program information) can be leveraged on the new marketing websites that are under development for the Schools and Colleges.

Quick Stats

Processed over 450,000 Cognos reports averaging 50,000 reports a month. Ad hoc or self-service reports were the most popular and 8 of the top 10 were Financial reports. Undergraduate and Graduate Admissions List report rounded out the top 10 reports run.

Completed the following number of Competency Center Projects:

- 373 Student
- 64 Human Resources
- 26 Finance
- 14 Advancement



Extend and enhance technology services by introducing process efficiencies focusing on improved customer service



- ❖ Comcast worked with Computer Services to introduce Xfinity X1 IPTV and Cloud DVR services in the residence halls - a top requested amenity. The service is ready to launch for the Fall 2016 semester. Computer Services negotiated a zero cost for IPTV, saving over \$350,000 per year.
- ❖ Completed an assessment of our remote system access capability. Currently implementing a plan to reduce the complexity in gaining access from off-campus, streamline access to our HIPAA environment for researchers, and build a platform capable of supporting Temple's business requirements for the next three years.
- ❖ Created a framework to keep the TECH Center digital showcase banner and Community Partners screen refreshed with new content. Representatives from Computer Services, Strategic Marketing, Admissions, Athletics, Student Affairs and Community Relations meet every three or four months to complete an editorial calendar for upcoming events and to generate new ideas. Standardized templates, created by Strategic Marketing, were also provided to Community Partners, including the Center for Advanced Teaching, to display event topics on the TECH Center digital signage screens.

Quick Stats

Logged 986,000 visits to the TECH Center - 31,269 of these visits were unique.

Celebrated the 10 year TECH Center anniversary. Logged over 10 million visits to the TECH Center lab since opening in 2006. Also, over 100 organizations have toured the Center, including K-12 schools and national and international universities.



Extend and enhance technology services by introducing process efficiencies focusing on improved customer service



- ❖ Improved the Veterans Administration workflow by enabling students to upload documents from the Veterans Administration website, eliminating the need for the Registrar's office to scan this information.
- ❖ Enhanced the Admissions counselor queuing system for Testing Optional applications and added logic to optimize how each queue is handled. Also added quick links to the top 100 students for each queue, which enables admissions counselors to quickly evaluate and rate applicants on Admissions criteria.
- ❖ Implemented WebCheckout to streamline equipment loans for items such as laptops, tablets, cameras and tripods. The application tracks equipment and automatically sends reminder notices to students. It also provides statistical reports on the type and quantity of loaned items to aid in future purchasing decisions.
- ❖ Implemented LibCal, a joint project between Computer Services and Temple Libraries. LibCal is an online room reservation application that allows students and faculty to reserve meeting spaces and collaboration / conference rooms.

Quick Stats

Processed over 16,000 requests for equipment loans in Fiscal Year 2016, compared to 10,000 last year.

Processed 24,462 meeting room reservations through the new LibCal application, compared to 16,638 last year.



Extend and enhance technology services by introducing process efficiencies focusing on improved customer service



- ❖ Collaborated with the Office of Admissions on events such as Experience Temple Day to provide excellent customer service and streamline support. During these events, new students (and parents) are able to pay their tuition deposit at the Help Desk and obtain assistance with various technical issues. More than \$54,000 worth of deposits were placed at the Help Desk in Fiscal Year 2016, an increase of 35% over last fiscal year's trial run.
- ❖ Completed a Strategic Information Technology Assessment along with a comprehensive new infrastructure plan for the Rome campus. A new server/chassis, server rack, uninterruptible power system (UPS), cables and other miscellaneous equipment were purchased and installed in May 2016 by Computer Services Main Campus staff in collaboration with Temple Rome IT consultants. The Rome campus upgrade provides for improved system performance, server virtualization, single sign-on capabilities, enhanced security features, improved technical support, including remote services from Main Campus, and enhanced wireless communications and wireless access for open campus/guest-related events.
- ❖ Broadened the range of Tech Bits by featuring a Library topic on the resources available in the My Library Account portion of the Library website and a Human Resources topic on fraud during tax filing season.



Provide technology resources and services to support Temple's reputation as Philadelphia's Public University



Temple is Philadelphia's public university and a powerful intellectual partner for the city and the commonwealth of Pennsylvania. Temple's community of scholars is committed to using its expertise, creativity and energy to tackle the toughest challenges facing urban communities. In this regard, Computer Services:

- ❖ Established a partnership with the College of Education and the Philadelphia School District to donate surplus equipment (200 computers per year) and offer technology training programs. Solicited proposals directly from 20 individual schools, resulting in three submissions. Total school donations for this fiscal year are approximately 150 computer/monitor stations, 19 printers and 30 other peripherals. In addition, numerous donations were made to community groups throughout the year.
- ❖ Collaborated with The Free Library of Philadelphia to solicit technology proposals from organizations supporting the READ! By 4th program. Proposals were received from Philadelphia READS, The Work Force Institute and The COLOURS Organization, Inc. After evaluating the proposals and the group's ability to provide continuing support for the donated items, a total of 36 computers and monitors were donated to these three organizations.

Quick Stats

Collected over 6,000 pieces of surplus equipment through the Computer Recycling Center.

Processed over 1,300 order requests for used computer equipment for students, departments, staff.

Donated approximately 220 refurbished computers and monitors to local non-profit groups.



Provide technology resources and services to support Temple's reputation as Philadelphia's Public University



- ❖ Worked with the Dental School to design a mobile solution for providing technology support at two community clinics. In addition to the Dental School, this model can be adopted by other university clinics that are providing community services at remote locations.
- ❖ Recruited 20 Computer Services staff volunteers to participate in various service activities for the Martin Luther King, Jr. Day of Service. Two groups cleaned up the neighborhood surrounding the historic Uptown Theatre. Another group worked in conjunction with "Grands as Parents" to help sort and distribute clothing for the homeless.
- ❖ Represented Temple University on the Board of Directors of KINBER (Keystone Initiative for Network Based Education and Research) whose goal is to more seamlessly connect all education, health care and research institutions throughout the state.



Provide for a trusted, reliable communications and IT infrastructure



One of Computer Services most important roles is to provide a state-of-the-art communications and IT infrastructure to support many applications and uses of technology in meeting our academic, research, business and health care missions. To support this goal, Computer Services:

- ❖ Converted and upgraded over 5,000 of 15,000 phones to Voice over IP (VoIP) service and set up 582 users so they can receive copies of their voicemail via email. The University conversion is scheduled for completion in December 2018 at the current pace of 4,000 phones per year.
- ❖ Increased overall University network speed by 2 gigabytes (10 gigabytes for the Internet2 Research network). Implemented a new firewall and consolidated all residence hall network switches and wireless controllers to separate the residence halls for better performance and security. Also, added new building distribution switches to improve network performance. The project will continue into the Fall 2017 semester.

Quick Stats:

Network Connections:
Additions: 5323
Updates: 2919
Relocations: 395
Disconnects: 2488

Telecommunications
Services - Phones:
Additions: 1872
Updates: 1876
Relocations: 400
Disconnects: 3821

Converted 153 out of 213 enhanced calling legacy applications and added more than 35 new applications.



Provide for a trusted, reliable communications and IT infrastructure



- ❖ Completed work to bring WiFi and WiMax wireless access to the food pad next to the Bell Building. Also wireless access will be expanded this summer to include the seating in front of all the food areas on Liacouras Walk.
- ❖ Implemented telephony improvements by converting legacy applications to benefit areas such as the Registrar's Office and Campus Safety who are required to record phone conversations and all other call centers supporting the community.
- ❖ Created an IT crisis center inside Wachman Hall that will be functional in summer 2016. Furniture has been acquired and a separate internet service will be installed.
- ❖ Enhanced and decreased the delivery time of TUALert notifications by streamlining the dispatch team process. Replaced the single Main Campus siren with four new sirens that include audio speech technology to ensure that the notification can be heard across the entire campus. Moved the existing Main Campus siren to the Health Sciences Campus, which did not have one.



Provide for a trusted, reliable communications and IT infrastructure



- ❖ Converted the mass email formatting and distribution process to L-Soft Maestro, a package used by many large companies and organizations. Messages are now accessible and mobile friendly. Key personnel also attended Maestro training to take full advantage of the program's features.

- ❖ Upgraded the following systems or infrastructure to enhance and introduce new functionality and / or security:
 - Wireless networks (TUguestwireless and TUsecurewireless)
 - Enterprise Oracle Database
 - Shibboleth Authentication Services
 - Virtual Private Network (VPN) Services
 - Acquia PHP supporting our Drupal Web presence



Continue to strengthen and educate the Temple community on IT Security

One of the biggest issues facing higher education today is cyber security. As our community relies more on our network, applications, and mobile technology, the opportunity for unwanted intrusions increases dramatically. Computer Services has an obligation to do everything possible to protect our valuable data and infrastructure. For Fiscal 2016, security initiatives included:

- ❖ Implemented a Distributed Denial of Service (DDoS) solution to defend against external security attacks. In place for almost a year, this technology has defended Temple against thousands of attacks from the very small to the large, one consisting of a 20-minute, 5-Gig of traffic attack with 1.4 million new connections per second.
- ❖ Enhanced our internal security to defend against threats:
 - Developed and rolled out Two Step Verification to protect employees' Direct Deposit and Dependents' information. This protection will be expanded to additional websites in the future.
 - Implemented data scrambling in our Banner development and test environments.
 - Increased our desktop and shared drive encryption by more than 25%.
- ❖ Engaged an outside firm to review security practices, current use of technology and process/procedures against the National Institute of Standards and Technology's cyber security framework. Report delivered in July 2016. In an effort to strengthen our cyber security, a strategy will be developed based on the report recommendations and risk evaluation.



Maintain Daily Operations



Computer Services has an important strategic mission in supporting the academic, research and administrative functions of the university. It is critical that daily operations are maintained to keep the university's technology functioning and secure. In order to fulfill this responsibility, Computer Services continues to:

- ❖ Monitor university systems and network performance and troubleshoot issues.
- ❖ Provide technical support to the university via in-person visits, chat, email and phone.
- ❖ Provide onsite support for helping residence hall students to get connected at the start of the semester.
- ❖ Provide onsite technology support and software installation via office visits.
- ❖ Install office telephone and internet service in university locations and troubleshoot issues.
- ❖ Manage TECH Center operations including 24-hour service during the fall and spring semesters.
- ❖ Maintain equipment in computer labs and provide support to students.
- ❖ Work on Competency Center requests to improve administrative systems functionality for students, faculty, staff and alumni.
- ❖ Collect surplus electronic equipment, destroy Temple proprietary data when needed and process the equipment through the Computer Recycling Center for either repurposing or proper disposal.
- ❖ Provide support for formatting and distributing targeted university email.

Quick Stats

Blackboard logins:
16,679,864

Lynda.com logins:
Over 86,296

Facilitated and distributed over 400 university messages to more than 4,000,000 targeted recipients in Fiscal Year 2016.